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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,836	04/30/2001	Timothy Griffin	033275-212	1029

7590 10/21/2003

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EXAMINER

PRICE, CARL D

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 10/21/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/843,836

Applicant(s)

GRIFFIN ET AL.

Examiner

CARL D. PRICE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003 and 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,5-11,18,19 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-11,18,19 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### Response to Arguments

#### Claims

Claims 2-4,12-17 and 20-23 have been cancelled by applicant.

Claims 1,5-11,18,19 and 24 are under examination.

Applicant's arguments with respect to claims 1, 5-11,18,19 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that the prior art of record fails to show or teach the invention as recited in the amended claims. For example, applicant contends that that the prior art of record fail to show the combination of a catalyzer structure, stabilization zone, final combustion zone and a downstream turbine, as now as set forth in the amended claims. In both the apparatus claim 1 and method claim 24, it is noted however that while the catalyzer structure, stabilization zone and final combustion zone are positively recited in combination, the "a gas turbine" recitation in the claim continues to be considered merely a statement of intended use, since the phrase "can be fed to a downstream turbine" does not positively add a turbine to the claimed combination of elements.

#### Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a downstream turbine" (claims 1

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and 24) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**Claims 1,9,10,11,18,19 and 24: rejected under 35 U.S.C. 103**

Claims 1,5,9,10,11,18,19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of EP '117(of record), or Hottenhofer et al (US '832)(of record), in view of Bowker et al (U.S. Patent No.- 5623819)(newly cited).

EP '177 discloses the invention substantially as set forth in the claims with possible exception to the use of the catalyst in combination with a gas turbine system including fuel

injection device and a stabilization zone, combustion zone and turbine downstream of the catalyst.

EP '177 shows and discloses a catalytic operating structure formed from a corrugated (figures 1, 2) porous woven catalytic coated fiber material forming passages (see figures 3,4) where due to the open characteristics of the woven material adjoining channels communicate with each other. In regard to claims 18 and 19, in particular, EP '177 further shows several layers (1,2; figure 7) that are oriented differently. In regard to claim 19, in particular, the apexes of the corrugations are shown to rest on each other.

US '832 discloses the invention substantially as set forth in the claims with possible exception to the use of the catalyst in combination with a gas turbine system including fuel injection device and a stabilization zone, combustion zone and turbine downstream of the catalyst.

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US '832 shows and discloses a catalytic operating structure formed from a corrugated (figure 7) porous metal foil catalytic coated material forming passages (138) permitting adjoining channels to communicate with each other. In regard to claims 18 and 19, in particular, US '832 shows several layers that are oriented differently where the apexes of the corrugations are shown to rest on each other.

Bowker et al teaches, from the same catalytic reactor field of endeavor as EP '117, a gas turbine system including fuel injection device (50) and a stabilization zone (94), combustion zone (40) and turbine (3) downstream of a catalyst (86).

In regard to claims 1,5,9,10,11,18,19 and 24, it would have been obvious to a person having ordinary skill in the art to use the catalyst of EP '117, or Hottenhofer et al (US '832), as a suitable low pressure drop catalytic reactor in combination with a gas turbine system including fuel injection device and a stabilization zone, combustion zone and turbine downstream of the catalyst, in view of the teaching of Bowker et al. In regard to claim 11, since the manner of applying a metal catalyst to a support structure would depend on numerous design concerns such as the type of support material, the dimensions of the catalyst passages, etc. to apply the metal as a "foil" coating can be viewed as nothing more than a mere matter of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

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**Claims 6-8: rejected under 35 U.S.C. 103(a)**

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of EP '117 or US '832 in view of Bowker et al (U.S. Patent No.- 5623819)(newly cite), as applied to claims 1 and 24 above, and further in view of Dalla Betta et al (US 5248251) and Betta et al (US 5512250).

Both EP '117 and US 832 show and disclose the invention as set forth in the claims. However, EP '117 and US '832 do not disclose inactive and active channels, or zones, as set forth in applicants claims.

Dalla Betta et al and Betta et al both teach, from the same catalytic structure field of endeavor as EP '117 and US '832, providing different catalytic activity zones (see Dalla Betta et al; figure 2c) and active and inactive channels (see Betta et al; figures 1-7) for the purpose of defining reaction area in order to active a desired overall effect on the gases in the structure.

In regard to claims 6-8, for the purpose of defining reaction area in order to active a desired overall effect on the gases in the structure, it would have been obvious to a person having ordinary skill in the art to modify the catalytic structure of EP '117, and US '832, to include inactive and active coated channels, or zones, as set forth in applicants claims, in view of the teachings of Dalla Betta et al and Betta et al.

#### **Conclusion**

See the attached PTO FORM 892 for prior art made of record and not relied upon and which are considered pertinent to applicant's disclosure.

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#### **THIS ACTION IS MADE FINAL**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***USPTO CUSTOMER CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is 703-308-1953. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 703-308-0101. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1148/0858.



CARL D. PRICE  
Primary Examiner  
Art Unit 3743

cp  
October 20, 2003